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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,204	12/14/2000	Michael T. Flavin	96,725-C	2696
20306	7590	07/02/2004	EXAMINER	
MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP			MORAN, MARJORIE A	
300 S. WACKER DRIVE			ART UNIT	
32ND FLOOR			PAPER NUMBER	
CHICAGO, IL 60606			1631	

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

2005

Office Action Summary

Application No.

09/737,204

Applicant(s)

FLAVIN ET AL.

Examiner

Marjorie A. Moran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/18/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Information Disclosure Statement

The IDS filed 12/18/01 has been considered in full.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 17-22 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 13-17, respectively, of prior U.S. Patent No. 6,175,816. This is a double patenting rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6, 12 and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 18 of U.S. Patent No. 6,175,816. Although the conflicting claims are not identical, they are not patentably distinct from each other because a narrower range of values, as recited in instant claim 12, is a "different" range of parameter values, as recited in claim 18 of '816.

Claims 7-11 and 13-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 18 of U.S. Patent No. 6,175,816 in view of claims 19-23 and 28-30, respectively.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 6-7, 9-13, 16-19 and 22 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by AGRAFIOTIS et al. (IDS ref: US 5,463,564, filed 9/16/1994).

AGRAFIOTIS teaches a method of optimizing chemical synthesis wherein variables for synthesis of a chemical library are chosen, test conditions are selected, analytes are dispensed into a plurality of wells according to the selected test conditions, compounds are synthesized, subjected to statistical analysis (SAR), and a narrower or smaller range of parameters for a second iteration of synthesis are selected based on the analysis (col. 17, line 7-col. 20, line 9 and col. 21, line 61-col. 22, line 63), thus anticipating claims 6 and 9-13. AGRAFIOTIS further teaches that his variables for reaction may include operating conditions (col. 18, lines 1-5), thus anticipating claim 7, and teaches ranking of his products, which inherently includes ranking of the wells in which those products are synthesized (col. 18, lines 41-66), thus anticipating claim 18.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over AGRAFIOTIS et al. (IDS ref: US 5,463,564, filed 9/16/1994) in view of RAUTELA et al. (Clinical Chem. (1979) vol. 25 (11), pp. 1954-1964).

The claims recite methods of optimizing chemical synthesis by identifying and choosing variables of experimental tests affecting synthesis, dispensing reagents for particular tests into wells, performing a reaction, taking sample from the wells, detecting and performing statistical analysis of components in the samples, generating parameters for further experiments based on the analysis, and repeating the dispensing, reacting, sampling and analyzing steps using the new parameters. Dependent claims limit the initial values of variables to be chosen from a range, specifically randomly chosen, and limit the new parameters to be narrower than the initial range. Claims 7-8 limit the variables to be operating conditions, reagent concentrations, or reaction times. The statistical analysis is further limited, in various claims, to include ranking wells, determining a most favorable reaction, or graphical description, specifically generation of contour maps.

AGRAFIOTIS teaches a method of optimizing chemical synthesis, as set forth above. AGRAFIOTIS teaches ranking, determination of most favorable (or best) reactions, also as set forth above. AGRAFIOTIS teaches that a variety of variables, including operating conditions (col. 18, lines 2-5). AGRAFIOTIS does not teach

graphical statistical analysis or specific variables which include concentrations and reaction times.

RAUTELA teaches optimization of chemical reaction conditions using multivariate contour maps for statistical analysis (e.g. p. 1961). RAUTELA further teaches that substrate concentrations and reactions rates are variables to be considered in optimizing chemical/synthesis reactions (p. 1954).

It would have been obvious to one of ordinary skill in the art at the time of invention to have included the contour map plotting of RAUTELA in the statistical analysis in the method of AGRAFIOTIS where the motivation would have been to facilitate analysis by providing a simple interpretation of data, as taught by RAUTELA (abstract, p. 1654). It would further have been obvious to have included the substrate concentrations and reaction rates of RAUTELA as variables in the method of AGRAFIOTIS where the motivation would have been simultaneously optimize several experimental variables for a chemical reaction, as taught by RAUTELA as being desirable (p. 1954), and where AGRAFIOTIS teaches that several reaction variables can be analyzed in his synthesis method.

Conclusion

Claims 6-22 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (571)

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272-0720. The examiner can normally be reached on Mon. to Wed, 7:30-4; Thurs 7:30-6; Fri 7-1 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571)272-0722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mam

Marjorie A. Moran
Primary Examiner
Art Unit 1631

Marjorie A. Moran
6/28/04